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What is claimed is:

- 1 1. A system comprising:
 - 2 one or more transmission mediums for carrying at least upstream and
 - 3 downstream digital data traffic;
 - 4 a headend circuit coupled to all said transmission mediums and containing or
 - 5 coupled to one or more server computers and/or other circuits to provide at least
 - 6 digital data services to a plurality of customers;
 - 7 one or more local area networks and/or dedicated LAN segments or data paths
 - 8 at each customer premises;
 - 9 one or more peripheral devices at each customer premises coupled to said one
 - 10 or more local area networks and/or dedicated LAN segments or dedicated data paths;
 - 11 a plurality of gateway means at customer premises locations and coupled to
 - 12 all said transmission mediums and coupled to said one or more local area networks,
 - 13 for receiving, demodulating and detecting digital data transmitted to one or more of
 - 14 said peripherals from said headend circuit and to packetize and route said data to the
 - 15 appropriate peripheral device via said one or more local area networks or one or
 - 16 more ports directly connected by dedicated lines or LAN segments to one or more
 - 17 peripherals, and for managing traffic and bandwidth and rate shaping if necessary to
 - 18 match the data rate of data to be transmitted over a data path to the available
 - 19 bandwidth on that data path; and
 - 20 a remote control means at one or more customer premises and, at each
 - 21 premises, coupled by wireless digital data communication circuitry to said gateway
 - 22 or to said gateway through a peripheral device, for issuing commands to said headend
 - 23 circuit through said gateway and one or more transmission mediums to provide data
 - 24 to said one or more peripherals through said one or more transmission mediums and
 - 25 said gateway.
- 1 2. The apparatus of claim 1 wherein said wireless digital data communication
- 2 circuitry is a digital data transceiver and wherein said remote control means includes a
- 3 display and audio data playing circuitry and further includes means for decompressing

PATENT

4 compressed video and/or audio data received by said transceiver and displaying the
5 decompressed video image data and for playing decompressed audio data, and further
6 comprising means for receiving and displaying internet protocol packet data defining web
7 pages, graphics, e-mail and other data that is received from the internet.

1 3. A system comprising:

2 one or more transmission mediums for carrying at least upstream and
3 downstream digital data traffic;
4 a headend circuit coupled to all said transmission mediums and containing or
5 coupled to one or more server computers and/or other circuits to provide at least
6 digital data services to a plurality of customers, and including rate shaping circuitry
7 to alter the data rate of data transmitted on or received from said transmission
8 mediums;

9 one or more local area networks or digital data buses at each customer
10 premises;

11 one or more peripheral devices at each customer premises coupled to said one
12 or more local area networks or buses;

13 at least one cable modem at each customer premises location, said cable
14 modem coupled to all said transmission mediums and coupled to said one or more
15 peripherals via said local area networks or buses; and

16 a remote control coupled to said headend through said cable modem or coupled
17 to said headend through one or more of said peripherals coupled to said cable modem
18 for issuing wireless commands that get routed by said cable modem to said headend to
19 invoke services provided by said headend circuit.

1 4. The apparatus of claim 3 wherein said cable modem includes rate shaping
2 circuitry to modify the data rate of data transmitted on said one or more local area networks,
3 and wherein said remote control each includes a transceiver for receiving infrared or radio
4 frequency transmissions of digital internet protocol packet data and/or compressed video
5 and/or audio data and decompression/conversion circuitry for decompressing any
6 compressed video and/or audio data and converting said decompressed video and/or audio data
7 and internet protocol packet data to signals or data that can be displayed and/or played and

PATENT

8 display circuitry for displaying said converted internet protocol packet data and/or
9 converted decompressed video data and includes a speaker and/or headphone jack for playing
10 and/or outputting analog sound data.

1 5. A system comprising:

2 a satellite dish for receiving downstream digital video data traffic at each
3 customer premises location;

4 a conventional telephone line at each customer premises location and routed to
5 a central office headend, for carrying low speed internet protocol digital data traffic
6 both upstream and downstream;

7 a digital video headend circuit coupled to one or more video and/or other
8 servers to transmit digital video and other data implementing one or more services
9 to one or more satellites for retransmission to the satellite dishes at each customer
10 premises location;

11 a central office headend server coupled to each of said telephone lines for
12 implementing the bidirectional transmission of internet protocol data packets to and
13 from said customer premises and servers on the internet;

14 one or more local area networks at each customer premises;

15 one or more peripheral devices at each customer premises coupled to said one
16 or more local area networks;

17 a plurality of gateways, at least one at each customer premises locations, each
18 gateway coupled to a satellite dish and to a conventional telephone line and coupled to
19 said one or more local area networks and functioning to extract digital video and
20 other data transmitted to one or more of said peripherals from said digital video
21 headend and/or said central office headend server and to route said data to the
22 appropriate peripheral device via said one or more local area networks; and

23 a remote control means at each customer premises coupled by wireless digital
24 data communication circuitry to said gateway or to said gateway through a peripheral
25 device, for issuing commands to said digital video headend circuit and to said central
26 office headend server through said gateway and one or more conventional telephone
27 lines to provide data to said one or more peripherals through said satellite dish
28 and/or a conventional telephone line and said gateway and local area network.

1 6. A system comprising:

2 a satellite dish for receiving downstream digital video data traffic at each
3 customer premises location;

4 a cable television hybrid fiber coaxial cable network (hereafter HFC
5 network) for carrying analog television broadcast signals and high speed internet
6 protocol digital data traffic both upstream and downstream;

7 a digital video headend circuit coupled to one or more video and/or other
8 servers to transmit digital video and other data implementing one or more services
9 to one or more satellites for retransmission to the satellite dishes at each customer
10 premises location;

11 a cable television headend circuit coupled to each of servers for implementing
12 the bidirectional transmission of data packets to and from said customer premises
13 and servers on the internet and for implementing bidirectional transmission of data
14 packets from said servers to said customer premises implementing other services;

15 one or more local area networks at each customer premises;

16 one or more peripheral devices at each customer premises coupled to said one
17 or more local area networks;

18 a plurality of gateways, at least one at each customer premises locations, each
19 gateway coupled to a satellite dish and having a cable modem included therein to
20 couple said gateway to said HFC network and coupled to said one or more local area
21 networks and functioning to extract digital video and other data transmitted to one or
22 more of said peripherals from said digital video headend circuit and/or said cable
23 television headend circuit and to route said data in the appropriate format to the
24 appropriate peripheral device via said one or more local area networks; and

25 a remote control means at each customer premises coupled by wireless digital
26 data communication circuitry to said gateway or to said gateway through a peripheral
27 device, for issuing commands to said cable television headend circuit through said
28 gateway and said HFC network to provide data to said one or more peripherals
29 through said HFC network and said gateway and local area network.

PATENT

1 7. The system of figure 6 wherein said gateway has a conventional modem therein
2 which interfaces said gateway to said digital video headend circuit through said remote
3 control means and a telephone line circuit of the public service telephone network for
4 purposes of ordering pay-per-view events for viewing on one or more of said peripherals.

1 8. A system comprising:
2 a plurality of satellite dishes for receiving downstream digital video data
3 traffic, each satellite dish at a customer premises;
4 a digital video headend circuit coupled to one or more video servers for
5 transmitting digital video broadcast data to said plurality of satellite dishes via an
6 uplink, a satellite and a downlink;
7 a plurality of conventional telephone lines, each routed to a customer
8 premises and each for carrying low speed internet protocol digital data traffic both
9 upstream and downstream;
10 a plurality of gateway means, each at a customer premises and coupled to at
11 least one of said telephone lines and at least one of said satellite dishes;
12 a central office server coupled to the internet and to said conventional
13 telephone lines to provide bidirectional internet protocol data transfers between each
14 said gateway and servers on the internet via a conventional telephone line;
15 one or more conventional analog televisions at each customer premises
16 coupled to said gateway via audio and video lines;
17 a remote control at each customer premises, and coupled by wireless digital
18 data communication circuitry to said gateway or to said gateway through a peripheral
19 device, for at least sending data and commands to said central office internet server
20 through said gateway and a conventional telephone line to cause bidirectional data
21 transfers between said gateway and said internet server;
22 each said gateway means for receiving compressed digital video broadcast data
23 and for wireless receiving commands from said remote control, and for coordinating
24 use of said remote control and said conventional analog television like a computer
25 keyboard and display, respectively, for sending and receiving internet protocol data
26 over a conventional telephone line so as to enable use of said television and remote
27 control and gateway like a personal computer to display web pages and/or e-mail,

PATENT

28 and for routing said compressed digital video data to a hard disk for recording or to a
29 decompression and conversion circuit for processing for display on said
30 television(s) or both.

1 9. The apparatus of claim 8 wherein said remote control includes a display and a
2 transceiver to receive compressed digital video broadcast data and decompression and
3 conversion circuitry to buffer frames of said data and decompress said compressed digital
4 video data and convert it to YUV or other format uncompressed video data that can be
5 displayed on said display.